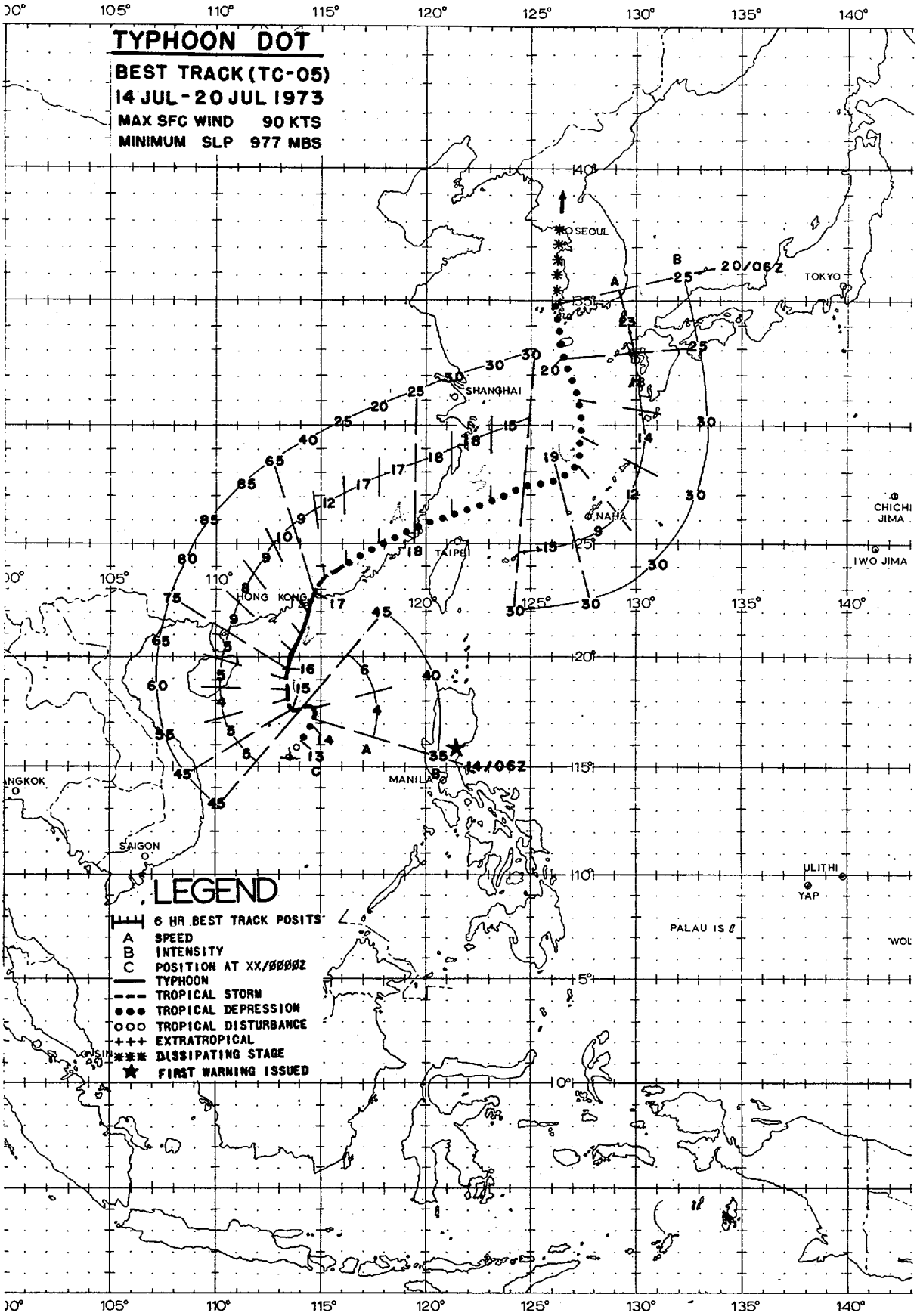
TYPHOON DOT
BEST TRACK (TC-05)
14 JUL - 20 JUL 1973
MAX SFC WIND 90 KTS
MINIMUM SLP 977 MBS
SEOUL
TOKYO
SHANGHAI
NAHA
CHICHI JIMA
IWO JIMA
TAIPEI
HONG KONG
MANILA
SAIGON
BANGKOK
ULITHI
YAP
PALAU IS
20/06Z
14/06Z
LEGEND
6 HR BEST TRACK POSITS
A SPEED
B INTENSITY
C POSITION AT XX/0000Z
TYPHOON
TROPICAL STORM
TROPICAL DEPRESSION
TROPICAL DISTURBANCE
EXTRATROPICAL
DISSIPATING STAGE
FIRST WARNING ISSUED

The South China Sea spawned its second typhoon of the 1973 season on 13 July with the genesis of Dot. Her development was quite similar to Anita's. A surge in the low level southwesterlies preceded her formation in the monsoonal trough.

Dot formed a few days after Billie. While Billie intensified rapidly in the Philippine Sea to dominate the synoptic situation in the vicinity of both tropical cyclones, Dot drifted slowly northward remaining poorly organized (Figure 4-6). Billie's strong mass divergence aloft effectively blocked Dot's outflow to the subtropical westerlies leaving a good outflow channel only in the southwest semicircle. This may have been a critical factor in explaining Dot's slow rate of intensification during the first three days of her existence.

Late on the 15th, Dot began to increase her rate of intensification. The United Kingdom ship HYRIA, located 60 nautical miles southeast of Dot's center, observed 55 knots of wind and a pressure of 989.3mb (15/0600 GMT). She reached typhoon strength late that evening as she accelerated to a speed of 9 knots towards Hong Kong. During this period, the separation between Dot and Billie began to increase and Billie had reached peak intensity and was starting to weaken. This apparently allowed Dot to intensify at a faster rate.

Besides intensity interaction between Dot and Billie, both storms also experienced the Fujiwhara interaction (Figure 4-7). By subtracting the steering flow from the resultant movement of both storms the interaction is quite pronounced (Brand, 1968). Throughout the period of the interaction Billie remained the stronger of the

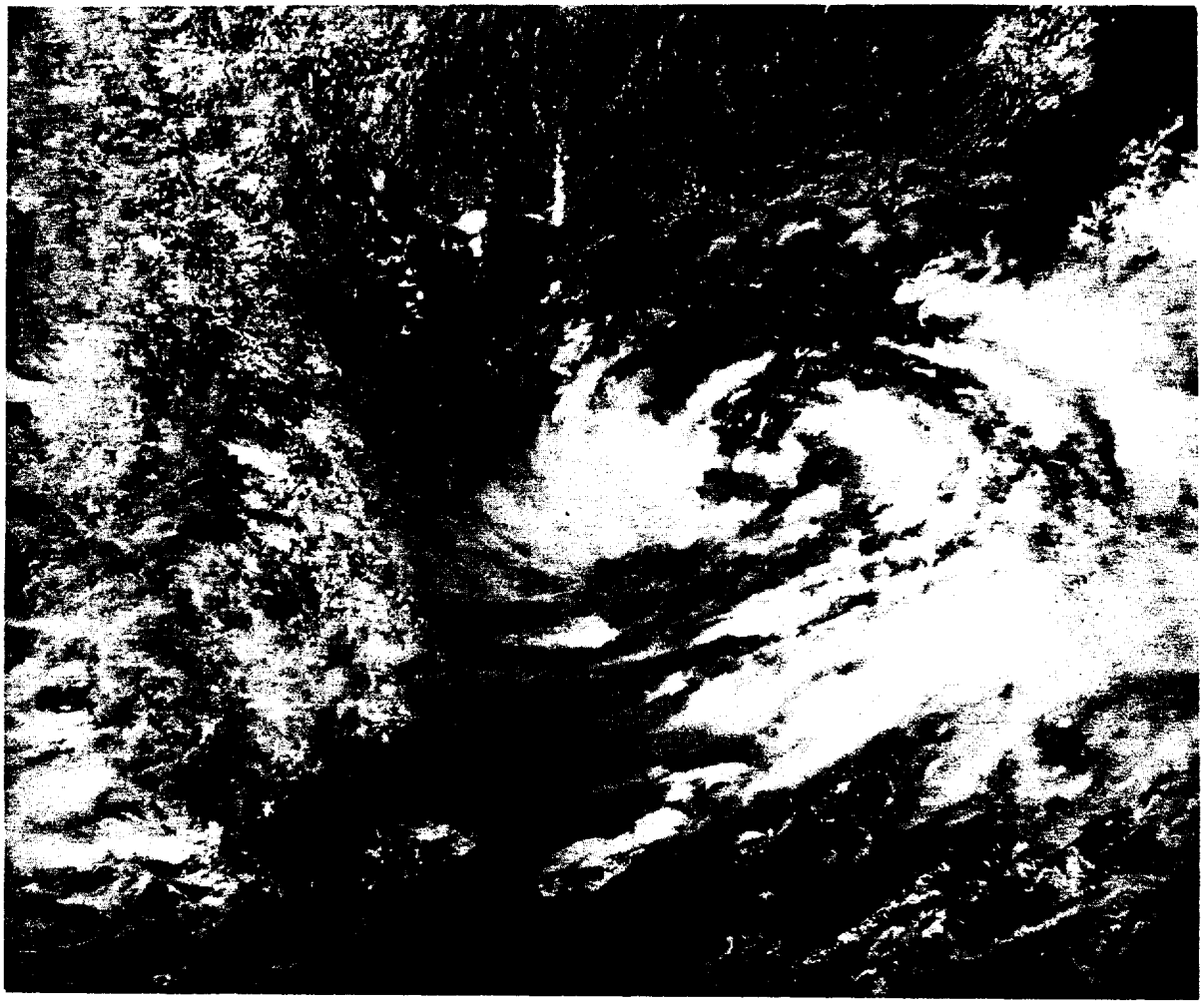

FIGURE 4-6. *Dot as a tropical depression in the South China Sea, 14 July 1973, 0446 GMT. (DMSP imagery)*

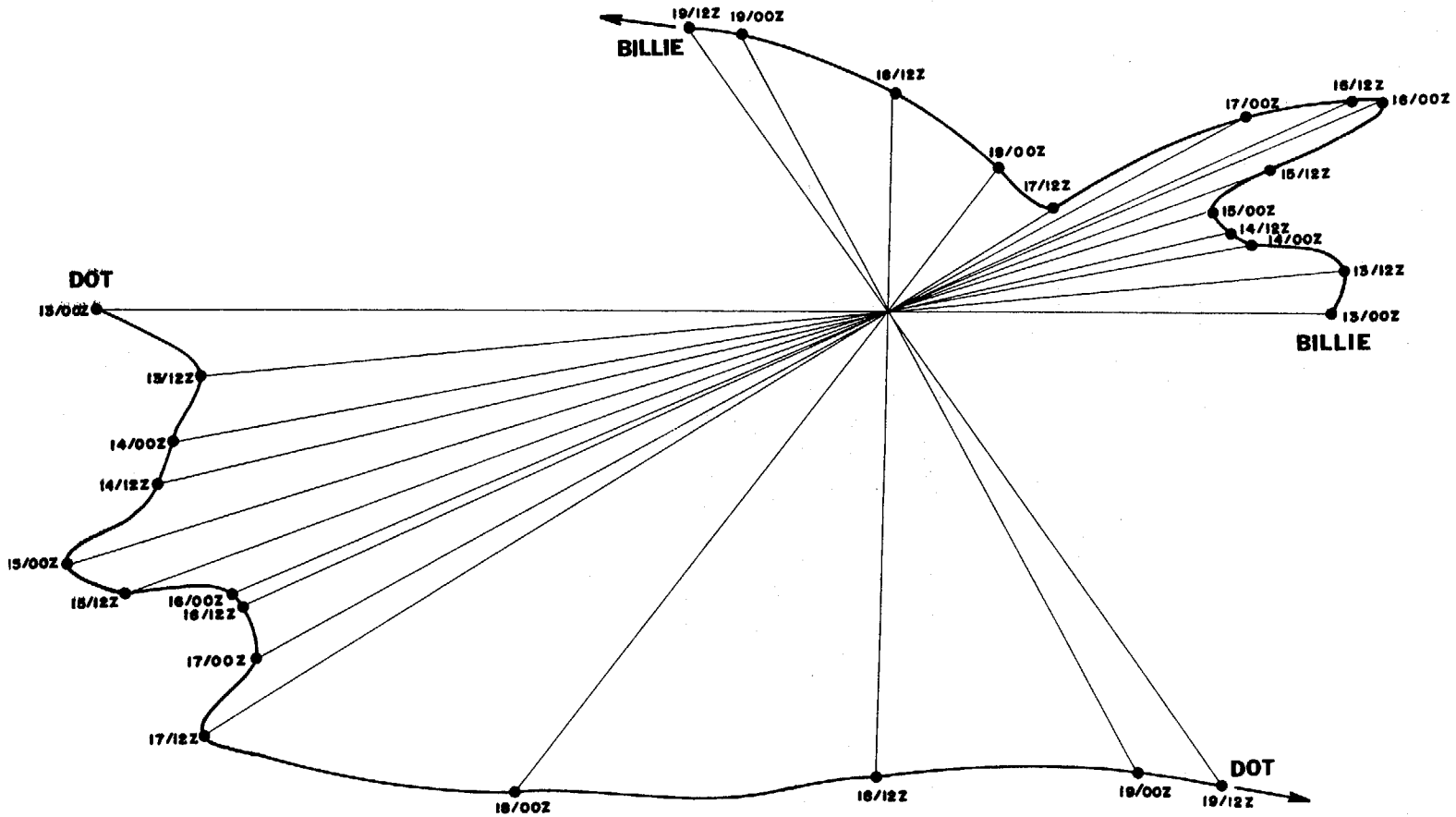

FIGURE 4-7. *Depicts Fujiwhara interaction between Typhoon Dot and Typhoon Billie over a period of approximately 6 1/2 days.*

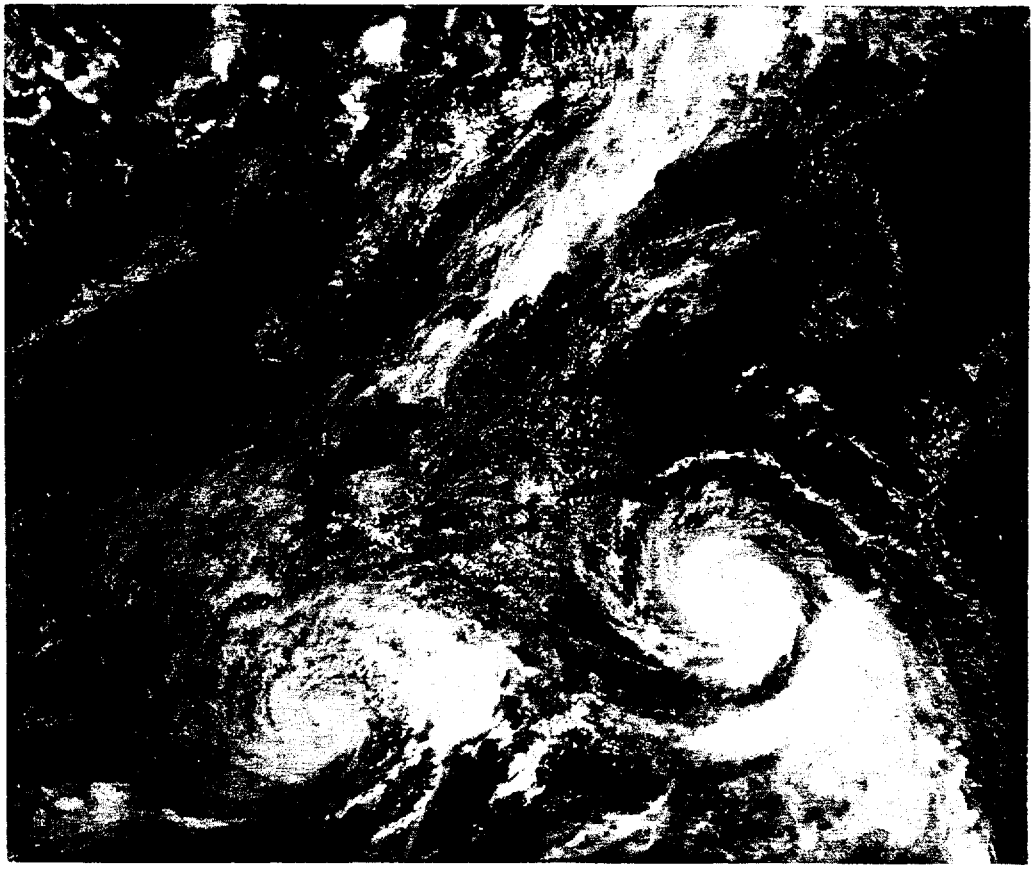

FIGURE 4-8. *Dot (left) overland 70 nm northeast of Hong Kong and Typhoon Billie (right) in the East China Sea, 17 July 1973, 0402 GMT. (DMSP imagery)*

two. As a result, Dot's resultant movement was affected much more significantly. Both storms rotated 124 degrees around the common center of rotation.

Dot reached her peak intensity of 85 knots on the 16th, about 80nm south of Hong Kong. She passed within 12 miles of the Royal Observatory in Hong Kong which experienced maximum sustained winds of 32 knots with a peak gust of 76 knots. Tate's Cairn in the Colony reported the strongest sustained winds of 57 knots with peak gusts of 97 knots.

Dot weakened considerably upon making landfall on the northeastern side of Mirs Bay (Figure 4-8). She tracked toward the eastnortheast over eastern Kwangtung during the night of the 17th as a low pressure area and entered the East China Sea near Foochow as a tropical depression on the morning of the 18th. As Dot approached within 120nm northnorthwest of Okinawa, she took an abrupt change of course due north in response to a building ridge to the east and accelerated rapidly, following in the wake of Billie. Dot dissipated over the Yellow Sea on the 20th.

Damage reports from Hong Kong indicated many low-lying areas in the New Territories were flooded. Hong Kong experienced heavy losses to garden crops, fruit trees, livestock, and farm houses. A landslide killed one person and injured 38 others. Two freighters were beached and six others dragged anchor.